Mahdi Taherahmadi

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M.Sc. Student, Computing Science, Simon Fraser University, BC, Canada

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RESEARCH INTERESTS

Reinforcement Learning, Multi-Modal Learning, Human-Robot Interaction,
Casual Inference

EDUCATION

Simon Fraser University, British Columbia, Canada

M.Sc, Computing Science - **CGPA: 3.93**   *Sept' 19 - Sept' 21*

Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran

B.Sc, Computer Engineering.   *July' 13 - July' 18*

RESEARCH EXPERIENCE & PROJECTS

Research Assistant - ROSIE Lab

- Emotion-Cause: Predicting the effect of robot body gesture, words and context on human positivity
Supervisor: Prof. Angelica Lim   *Apr '20 - Present*

Research Assistant - MARS Lab

- Human Navigational Intent Inference
Supervisor: Prof. Mo Chen   *Aug '19 - Present*

Data Analyst - Rahnema Co.

- RDMA Big Data R&D Team
                          Jan '18 - Mar '19

Research Intern - AIRLab - Polytechnic University of Milan

- Simulation and Evaluation of Realistic Wireless Communication in Multi-Robot Scenarios
Supervisor: Prof. F.Amigoni   *May '17 - Sept '17*

Research Assistant - Cognitive Robotics Lab - AUT

- Vision-based Advanced Driver Assistance System(ADAS)
BSc Project - Superviser: Dr. Shiry   *Oct '16*

- Comparing Corresponding fMRI, ECOG and EEG data in Human VTC
Joint Project with Royan Institute of Research - Superviser: Dr. Khaligh-Razavi   *Oct '16*

- Victim Detection and 3D Pose Estimation from 2D Images for a Rescue Robot
Supervisor: Dr. Shiry   *Nov '16*

- Community Detection in Social Networks
Fanavard International Data Mining Challenge   *Oct '16*

- RoboCup Rescue Simulation League Base Code
Team SOS VR, Supervisor: Dr. Shiry   *Sept '16*

Publications

TaherAhmadi M, Chen M, Lim A. "Learning the effect of robot body gesture, words and context on human positivity". *In IEEE International Conference on Intelligent Robots and Systems. IEEE, IROS.* 2021(To be submitted).

TaherAhmadi M, Agand P, Chen M, Lim A. "Optimal Control Inspired Probabilistic Model-Based Human Navigational Intent Inference". *IFAC Conference on Analysis and Design of Hybrid Systems, ADHS21.* 2021(Under Review).

Zhang Z, Rhim J, **TaherAhmadi M**, Yang K, Lim A, Chen M. "SFU-store-nav: A multimodal dataset for indoor human navigation". *Data in Brief. 2020 Dec 1;33:106539.*

Awards & Achievements

Computing Graduate Fellowship - *Simon Fraser University*	*Jan '20*
3rd Place - *FIRA RoboWorld Cup 2018*	*Aug '18*
- Team MCS, Simurosot - Miro Middle, Taichung, Taiwan	
3rd Place - *FIRA RoboWorld Cup 2018*	*Aug '18*
- Team MCS, Simurosot - RoboChallenge, Taichung, Taiwan	
13th Place out of 100 teams - *AUTDMC 2017*	*Nov '17*
- Amirkabir Data Mining Cup 2017, Tehran, Iran	
2nd Place - *RoboCup 2017*	*July '17*
- Team SOS VR, Rescue Simulation Virtual Robot league, Nagoya, Japan	
1st Place - *RoboCup IranOpen 2017*	*Apr '17*
- Team SOS VR, Rescue Simulation Virtual Robot league, Tehran, Iran	
9th Place out of 60 Teams - *Sharif Programming Marathon 2016*	*Sept '16*
- Magnet: The Localized Shopping Recommender System using PredictionIO Platform, Sharif University of Technology, Tehran, Iran	
3rd Place - *RoboCup 2016*	*July '16*
- Team SOS VR, Rescue Simulation Virtual Robot league, RoboCup 2016, Leipzig, Germany	
3rd Place - *RoboCup 2015*	*July '15*
-Teen size humanoid soccer league, RoboCup 2015, Hefei, China	
Top 0.03% - among more than 300,000 participants	*July '13*
- Nation-wide University Entry Exam	

Teaching Experience

Computing Science, Simon Fraser University:

- Teaching Assistant - *Affective Computing* - Dr. Angelica Lim	*summer '20*

Computer Engineering, Amirkabir University of technology:

- Teaching Assistant - *Linear Algebra and its Applications* - Dr. Ehsan Nazerfard	*spring '17*
- Teaching Assistant - *Principles of Programming Languages(C)* - Dr. Shiry	*Fall '16*
- Teaching Assistant - *Engineering Statistics* - Dr. AmirHaery	*Spring '16*
- Teaching Assistant - *Discrete Structures* - Dr. Fallah	*Spring '16*
- Teaching Assistant - *Data Structures & Algorithms* - Dr. Dehghan	*Fall '15*
- Teaching Assistant - *Principles of Programming Languages(C)* - Dr. Shiry	*Fall '15*
- Teaching Assistant - *Advanced Programming (JAVA)* - Dr. Pourvatan	*Spring '15*
- Teaching Assistant - *Principles of Programming Languages(C)* - Dr. Shiry	*Fall '14*

Medical Engineering, Amirkabir University of technology:

- Teaching Assistant - *Robotics* - Dr. AhmadiPajouh	*Fall '15*

Notable Coursework Projects

Leveraging Adversarial training for Depth Estimation - *Machine Learning*	*Fall '19*
Heart Disease Classification using PGM - *Statistical Machine Learning*	*Fall '16*
Power Usage Data Time Series Analysis - *Statistical Machine Learning*	*Fall '16*
Linear Regression on Student Grades Data - *Statistical Machine Learning*	*Fall '16*
Face Recognition Using SVD - *Advanced Engineering Mathematics*	*Fall '16*
SVD Image Compressor - *Advanced Engineering Mathematics*	*Fall '16*
Graph Based Motion Planner - *Design Algorithm*	*Spring '15*

WORK EXPERIENCE	**Data Analyst** - Python, Plotly Dash, Apache Airflow, Apache Spark, Oracle DB, MongoDB - *Rahnema Company*, Beheshti ave, Tehran, Iran.	*Jan '18 - Jul '19*
	Back-End Developer - Python, JS, PHP, Symfony, Git, Redmine - *ZoodFood Company, IIG*(Iran Internet Group), Vanak sq, Tehran, Iran.	*July '15 - Oct '16*
	Software Developer - Java, MySql, HTML, CSS, Illustrator, Git - *RAPNA*, Roshd Science & Technology Center, Tehran, Iran.	*Aug '13 - Dec '14*

COMPUTER SKILLS

Languages: C, C++, Qt, Java, Python, Matlab, Bash, JS, PHP, Assembly
Database Systems: MySQL, SQL Server
Typesetting: LaTeX, Microsoft Word
Frameworks, Operating Systems, and Scientific Tools: Linux, ROS, OpenCV, Weka, Caffe, Theano, Spark, NumPy, Pandas, Scikit-learn, pgmpy, Git, Docker
Designing Tools: Adobe Photoshop, Adobe Illustrator, Gimp

VOLUNTEER EXPERIENCE & POSITION OF RESPONSIBILITY	**Technical Committee of RoboCup AsiaPacific 2018** - Virtual Robot Rescue	*Dec '18*
	Technical Committee of RoboCup IranOpen 2018 - Virtual Robot Rescue	*Apr '18*
	Lecturer at CEIT Robotic Summer School - *Introduction to ROS*	*June '17*
	Presenter at 9th Linux Festival - *Introduction to Virtual Robot*	*May '17*
	Technical Committee of RoboCup IranOpen 2017 - Virtual Robot Rescue	*Apr '17*
	Leader of Team S.O.S vr - RoboCup Rescue, Virtual Robot Competition.	*July '16*
	Presenter at 8th Linux Fest - *Introduction to Cuda, Caffe, ROS & Docker*	*May '16*
	Member of 7th, 8th & 9th Linux Fest Organization team	*May '16*
	Director of Cognitive Robotics Lab - Computer Engineering department	*July '15*
	Coach and Captain of Faculty football team - Computer Engineering department	*Sept '14*
	Chief Editor of 0&1 magazine - *CEIT Students Scientific Chapter*	*Oct '14*
	Editor at Pouyesh magazine - *CEIT students association*	*Sept '13*

SPOKEN LANGUAGES

Persian*(Native)*, **Turkish***(Native)*, **Arabic***(Fair)*
English*(Fluent)* (TOEFL - 10 Nov - R:26 L:28 S:22 W:23 - Total:99)

REFERENCES

Mo Chen - Assistant Professor
- School of Computing Science, Simon Fraser University
- *mochen@cs.sfu.ca* - Home Page

Angelica Lim - Assistant Professor
- School of Computing Science, Simon Fraser University
- *angelica@rosielab.ca* - Home Page

Saeed Shiry - Assistant Professor
- School of Digital, Technologies and Arts, Staffordshire University
- *saeed.shiryghidary@staffs.ac.uk* - Home Page

Francesco Amigoni - Associate Professor
- Department of Electronics, Information and Bioengineering, Polytechnic of Milan
- *francesco.amigoni@polimi.it* - Home Page